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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,555	10/09/2001	Jeffrey J. Walls	10008320-1	7156

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EXAMINER	
MADAMBA, GLENFORD J	

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/974,555	WALLS ET AL.	
	Examiner	Art Unit	
	Glenford Madamba	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to amendments filed on April 14, 2005.

Specification

2. After consideration of the amendments made to the disclosure to include the patent number of the application cited by serial numbers in the pages noted, the Examiner has withdrawn the objection to the Specification.

Claim Rejections - 35 USC § 101

3. After consideration of the amendments made to claims 17-19 to direct them to statutory subject matter, the Examiner has withdrawn the rejection of the claims under 35 USC § 101.

Response to Arguments

4. With regards to Claim 1, Applicant argues that the claim patently defines over the Ludtke reference in that Ludtke fails to disclose the features of "specifying, at a master computer, compatible operating configuration for each of the plurality of slave computers; and communicating, across the network, the specified configuration to each of the plurality of slave computers." Examiner respectfully disagrees. The claim and its

limitations, as written, and broadly interpreted by the Examiner, are met by the disclosures of the Ludtke reference.

Applicant makes the argument that the features asserted by the claim are clearly disclosed in the specification of the present application, the objective of the invention being to configure, from a single source, a plurality of computers to operate in "compatible" mode or states, and cites "stereo" mode as an exemplary operating mode or state. Applicant further states that the specification describes the configuration operation pertaining to settings on the graphic cards of the various display computers, and asserts that the reference is, hence, misplaced.

In response to applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., specifying, at a master computer, compatible operating configuration for each of the plurality of slave computers *in relation to operating in a particular mode such as stereo or mono, and initializing/configuring the hardware/software settings on the graphic cards of the various display computers...*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant states that master device 22 in Ludtke merely determines how a video stream is partitioned among the multiple display devices within the display configuration and facilitates the partitioning of said video stream within the said display devices, as opposed to "specifying compatible operating configurations." Applicant refers to the description in the disclosure for the present invention for the "configuration of the graphics hardware/software to properly render graphics on a display..." as support. Again, Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Additionally, the Examiner maintains that Ludtke clearly specifies and communicates a "compatible operating configuration for each of the plurality of slave computers (display devices)" as required by the claim. In his description for the invention, Ludtke discloses a method and an apparatus for configuring and controlling the display of images on a multiple display configuration including a plurality of display devices, which includes a control circuit which further communicates through a communications circuit to provide instructions to the display devices to configure the display devices to each capture, scale, and display an appropriate image section at an appropriate time [col 5, line 55 – col 6, line 1]. The method includes the steps of determining a latency value for each of the display device, determining a worst case latency value for the display devices, and communicating the *worst case latency value*

(compatible operating configuration parameter) to each of the display devices, for synchronization purposes [col 10, lines 65 – col 11, line 9].

The corresponding scaled image section represents a full screen of data for the display device. The steps of capturing and scaling are preferably performed by each display device on the appropriate image section corresponding to the display device; or alternatively, performed by a master device on each appropriate section [col 3, line 60 col 4,line 3]. It is also clear from the Ludtke's description of his invention that the display devices, and their graphics cards, are configured so as to recognize and operate on select video stream type formats (e.g., MPEG2, MPEG4, MPEG7 and DV) in order to collectively and properly display the graphic image [col 4, lines 7-11 & col 12, lines 41-46].

5. Applicant also argues that the "configuration" referred to in Ludtke refers to the identification of which displays will cooperate to display an image and the orientation of the image, and does not disclose or suggest the configuration of each of the cooperating computers in a "compatible" configuration as required by claim 1 (e.g., preamble of claim 1 calling for networked slave computers that "cooperate to collectively render a display"). In response to applicant's arguments, the recitation above has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the

claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

6. With regards to Claim 8, Applicant argues that the claim defines over the Ludtke at least for the same reasons provided with claim 1 (please see response above for claim 1). Applicant further asserts that the first two elements of claim 8 define an expanded system having a plurality of master computers, and a head computer over each of the master computers, and that no such teaching is found in the reference. Applicant remarks that the position taken by the Office Action that this architecture is inherent is thus misplaced. In response, Examiner maintains that Ludtke discloses the claimed invention except for explicit reference to a plurality of master computers and a head computer over each of the master computers, which is only broadly addressed by Ludtke [col 8, lines 39-34]. However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Ludtke's apparatus to account for an architecture comprising a combination of multiple master computers headed by a head computer, as stated by the claim, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. (*St. Regis Paper Co. v. Bemis Co., 193 USPQ 8).*

As further support, the Examiner also refers Applicant to the reference cited but not referred to associated with the first Office Action, Greaves, Patent No. 6,195,687, which clearly discloses a system of the type of architecture required by Claim 8, wherein multiple master computers 12, which are communicatively coupled to a plurality of slave devices 14, are headed by a "configuration master computer 13" [Greaves: Figure 1].

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1- 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ludtke et al (hereinafter Ludtke). U.S. Patent 6,501,441.

3. Claim 1 declares a method for configuring a plurality of networked slave computers to cooperate to collectively render a display comprising: specifying, at a master computer, compatible operating configuration for each of the plurality of slave

computers; and communicating, across the network, the specified configuration to each of the plurality of slave computers.

Ludtke discloses an identical method of displaying images on a multiple display configuration including a plurality of display devices (24-40) and a master device (22) [see Figure 2]. Ludtke further specifies in one of the embodiments for the invention that the management support and controls for the multiple display configuration are exposed to control devices on the serial bus network, *allowing the control devices to issue commands to the master device concerning the configuration of the multiple display configuration*. These commands allow the control device and the user, through the control device, to specify controls such as which display devices are to be used within the multiple display configuration, the configuration and orientation of the image on the multiple display configuration and other appropriate characteristics [Col 19, Lines 53-66].

The master device is responsible for partitioning the video stream into image sections, scaling the image sections, encoding the scaled image sections and transmitting the scaled and encoded image sections to the appropriate display devices within the multiple display configuration [Col 3, Lines 27-33]. The method further includes transmitting the encoded data stream to each appropriate display device [Col 24, Lines 27-28] over a high-speed serial interface [Col 23 Lines 56-58], such as an IEEE 1394 serial bus network [Col 23 Line 60].

In considering Claim 8, in addition to the reasons cited above for Claim 1, Ludtke points out that the configuration provided in Figure 2 is exemplary only and that it is apparent that an audio/video network could include many different combinations of components [Col 8, Lines 29-31]. It is inherent that the invention can therefore be applied to expanded versions of the network configuration illustrated, such as pluralities of the described network configuration. In fact, Ludtke teaches in the embodiment of his invention that a *parameter configuration_ID* is used to specify which particular multiple display configuration is being configured, assuming the master device (22) supports more than one multiple display configuration [Col 20, Lines 41-43].

Claim 17 is also rejected for the same reasons provided as it differs only by its statutory category.

4. Claim 2 specifies the method of claim 1, wherein the step of communicating the specified configuration comprises communicating the specified configuration through a communication socket of each of the plurality of slave computers.

Ludtke discloses a multiple display configuration system comprising, in part, of a display communications circuit configured for receiving and transmitting data [Col 26, Lines 24-27].

Claims 9 and 19 are also rejected for the same reason cited above as they differ only by their statutory category.

5. Claim 3 asserts the method of claim 1, wherein the step of communicating the specified configuration comprises saving at least one slave configuration file in a predetermined location on each of the plurality of slave computers.

In one of his claims for the invention [Col 25, Lines 40-46], Ludtke discloses a method that has as one of its steps, transmitting each scaled image section to each appropriate display device, wherein the step of transmitting each scaled image section includes combining data representing the scaled image section for an appropriate display device in a stream of data packets, *each including an address value corresponding to a memory location within the appropriate display device.*

Further, Ludtke discloses a method wherein a trigger packet, which includes a trigger bit, is sent and signals that storage of a current scaled image for display by the appropriate display device is complete [Col 25, Lines 65-67 & Col 26, Lines 1-2].

Claims 10 and 18 are also rejected in that they make the same assertion as Claim 3 and are differentiated only by their statutory category.

5. Claim 4 states the method of claim 3, wherein the step of saving at least one configuration file comprises saving the at least one slave configuration file using a predetermined filename.

In considering Claims 4, it is inherent from the teachings of Ludtke that the transmittal of encoded data packets to an address corresponding to a memory location within each one of the display devices in the multiple display configuration would be contained in some standard file format (i.e., MPEG or DV file) with a predetermined filename as its identifier [Col 25, Lines 61-64].

Claim 11 is also rejected for the same reason provided as it differs only by its statutory category.

6. Claim 5 declares the method of claim 1, wherein the step of specifying, at a master computer, operating configurations further comprises the step of reading, by the master computer, a master configuration file that is stored in a predetermined location.

Claim 6 declares the method of claim 5, wherein the step of specifying, at a master computer, operating configurations further comprises the step of translating information from the master configuration file and saving the translated information into a plurality of slave configuration files.

In considering Claims 5 and 6, Ludtke specifies a multiple display configuration system comprised, in part, by:

a master device coupled to the plurality of display devices comprising:

i. a master communications circuit configured for receiving and transmitting data; and

ii. a control circuit coupled to the master communications circuit for partitioning an image into a plurality of image sections each corresponding to one of the display devices and assigning each image section to a corresponding display device.

[Col 26, Lines 38-46].

Ludtke additionally points out as a preference that management support and controls for the multiple display configuration are exposed to control devices on the serial bus network, *allowing the control devices to issue commands to the master device concerning the configuration of the multiple display configuration* [Col 19, Lines 53-66]. As shown in Figure 3 for the reference (Ludtke), the master device has memory components (i.e., main memory, video memory, and mass storage) for storage of control commands/specifications received from control devices to which it is coupled.

The steps of capturing and scaling each image section are performed by a master device (22) on each appropriate image section [Col 24, Lines 38-39, Col 25 Lines 34-39] before each data stream is transmitted to the appropriate display device.

Claims 12, 13, and 15 are also rejected in that they make the same assertion as Claims 5 and/or Claim 6, and are differentiated only by their statutory category.

8. Claim 7 states the method of claim 5, wherein the step of specifying, at a master computer, operating configurations further comprises the step of translating information from the master configuration file and communicating the translated information to the plurality of slave computers.

Ludtke, in his preferred embodiment teaches that a *configure command* is utilized by a control device to initially set up a multiple display configuration and to change an existing multiple display configuration [Col 19 Lines 63-66]. The master device (22) issues the appropriate commands to each display device (24-40) to set each display device to the appropriate resolution before the master device (22) configures the display devices (24-40) for the multiple display configuration [Col 20, Lines 26-29]. A subsequent configuration command using the same identification value (parameter configuration_ID) would cause a change to the specified multiple display configuration [Col 20, Lines 47-49].

Ludtke also teaches in an alternative embodiment that given an original data stream (video stream) the master device *decodes* the frame data, partitions the image data into each image section corresponding to each display device, scales the image

data, *re-encodes* the scaled image data for each image section on separate isochronous streams and *transmits* the encoded and scaled image data for each image section on separate isochronous channels, one directed to each of the display devices, as appropriate. The display devices (24-40) then display the encoded and scaled image data at an appropriate time, as specified by the master device (22) [Col 22, Lines 42-53].

Claims 14 and 16 are also rejected in that they make the same assertion as Claim 7 and are differentiated only by their statutory category.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenford Madamba whose telephone number is 571-272-7989. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3932. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Glenford Madamba
Examiner
Art Unit 2151

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER